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SUMMARY

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THE UTILIZATION OF TROPICAL HARDWOOD PLANTATION TIMBERS FOR PULP AND PAPER MAKING

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SUMMARY

The Utilization of Tropical Hardwood Plantation Timbers for Pulp and Paper Making

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The growth of political autonomy and improvements in educational and cultural standards in many of the emergent countries in the tropics have led to greatly increased consumption of paper and paper products. At the same time, there is a growing demand for industrialization where, until recently, only agricultural raw materials have been produced. In many countries, the establishment of paper industries is therefore receiving consideration, or has actually been achieved. It is desirable, in countries with long traditions as primary producers, to utilize local raw materials for the developing industries.

In the case of the pulp/paper industry, especially, ample supplies of cellulosic raw material are usually available, although they may often be of a kind unfamiliar to the paper-maker. Other problems, especially that of economic scale of operation, may also arise when a paper industry is established in a newly developing country.

Most of the world's paper is at present manufactured from the softwoods of the temperate and subarctic zones. These traditional sources are becoming inadequate to meet rising demands, and a trend toward the utilization of hardwoods is developing, even in the established producer countries.

The most readily available materials in West Africa are hardwood timbers, while many of the more conventional paper-making materials are not available in adequate quantities. However, not only are the natural forests usually very mixed in composition, rendering difficult their use for pulping, but many of the species command high prices as lumber, and are thus uneconomic for use as pulp wood. Considerable opportunities exist for the development of plantations of quick-growing hardwoods. Species of Eucalyptus are already making a very major contribution to paper pulp supplies, especially in

Australia, while many other genera appear to have possibilities, for establishment on the plantation scale in the drier parts of West Africa, which are unsuitable for the production of saw timber. Softwoods, such as the tropical pines, also warrant attention, but difficulties have been experienced in establishing coniferous trees in foreign soils. Unlike many hardwoods they cannot be coppiced, so that a recurring regeneration problem exists. The establishment of such plantation can not only serve to stimulate industrial development based on local raw materials, but can also have beneficial side effects, such as erosion control.

Extensive research is still needed on these materials, and collaboration between Industrial and Forestry authorities is necessary to ensure the best utilization of resources: the value of much research previously undertaken in the past has been substantially reduced by the fact that such liaison has been difficult when the pulping trials have been carried out in temperate countries, remote from the sources of supply.

In Nigeria the Federal Institute of Industrial Research has recently initiated a research on locally available timbers, and other possible pulp sources, in close liaison with Forestry and Agricultural authorities.

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